2009 Aquatic Reserve
Technical Advisory Committee Recommendation

Protection Island

The TAC unanimously recommends managing this site as an Environmental, Scientific and Educational Aquatic Reserve. The TAC has also developed three recommendations for site boundaries for independent or concurrent implementation (map included):

1. Extend boundaries to the north to include the entire Dallas Bank to capture long-term foraging habitats used by marine birds;

2. Expand the eastern boundary to McCurdy point on Quimper Peninsula to capture the large, persistent kelp beds, and the areas of high harlequin duck and marbled murrelet usage, and/or

3. Extend the boundaries south to Beckett Point and straight east to include continuous eelgrass beds as well as foraging areas for marine mammals, forage fish and marine bird. Based on repeated observations of animals using this part of Discovery Bay throughout the year, it is likely there are pelagic and benthic habitat features that would benefit from DNR protection.

Important environmental attributes noted by the Committee are:

- The confluence of oceanographic conditions, originating from the Strait of Juan de Fuca and Admiralty Inlet, creates a highly productive marine ecosystem.

- A unique, submerged vegetation community surrounding Protection Island includes a high diversity and abundance of three species of sea grasses as well as extensive red, brown, and green algae. Unusual, deepwater beds of both *Zostera marina (*eelgrass), *Phyllospadix* spp. (surf grass), interspersed with red and brown algae.

- The submerged vegetation community supports extensive fish biodiversity at the site. WDFW trawl surveys have identified 140 different species within the proposed boundaries.

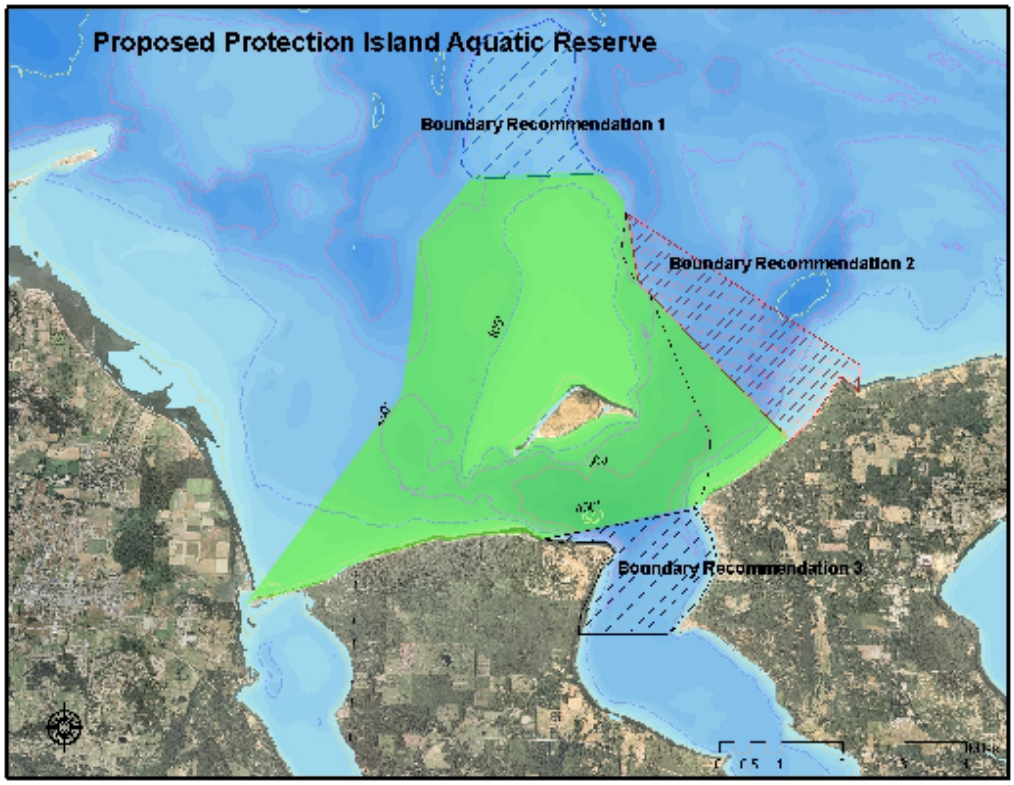
- Largest Rhinoceros Auklet nesting colony in the State, third largest nesting colony in North America.

- 70% of all Puget Sound breeding seabirds nest on Protection Island. Nesting seabirds, including Rhinoceros Auklets, Tufted Puffins and Glaucous-winged Gulls forage on benthic and pelagic fish in the surrounding waters, close to the colony. Pigeon Guillemots nest in crevices along the shore of Protection Island, and forage on small benthic fish. Black Oystercatchers also nest on the shoreline in rocky habitats and forage on intertidal and subtidal invertebrates.

- Protection Island is one of eight important locations for molting Harlequin Ducks in the State because the site has low human disturbance and high fish populations for when birds are flightless.

- Supports Ancient Murrelet overwintering populations and may be one of the most southern nesting records for this species (2009).
- Important seal pupping haul out site for harbor seals, and haul out site for transient Northern elephant seals.
- Foraging location for gray whales.
- Wide-bladed *Desmerestia* spp. is the dominant species in an area of Dallas Bank. This native species of kelp normally dominates marine habitats in South America, rather than Puget Sound.
- Extremely strong bottom currents on the outer bank move kelp, and the rocks they are attached to, to depths where they do not usually occur.
- Approximately 70% of the tidelands within the proposed boundaries are state-owned, DNR managed.
- Minimal shoreline modifications with intact feeder bluffs and nearshore drift cells.
- This site is repeatedly identified by conservation planning efforts as a priority area for protection.
- The Port Townsend Marine Science Center maintains existing infrastructure for environmental education and scientific research. This provides an excellent opportunity to build on existing educational and scientific activities.
- USFWS and WDFW have long-term research projects to monitor breeding populations of seabirds, seals and sea lions, as well as transient populations of Northern elephant seals. This provides another excellent opportunity to build on existing scientific activities.

Boundary Recommendations
The following map details the TAC recommended boundary modifications (hatched polygons) to the proposed Smith and Minor Islands Aquatic Reserve.



Management Recommendations

- Support delegating authority to the USFWS to manage the 200-yard buffer surrounding Protection Island.
- Managed access for educational opportunities and scientific research should be included in the management plan.
- Consider restricting activities that might disrupt and/or destroy physical and biological processes that influence the movement of water, sediment and nutrients within reserve boundaries, as well as oceanographic conditions that support the diversity of habitats and species found at the site.
- Recommend continuing ban on bottom trawling at the site.
- Include derelict gear removal activities in the site-specific management plan.

TAC Evaluation Background
The TAC visited this site once on 20 May 2009. The site visit included a vessel-based tour of the shorelines of Jefferson and Clallam Counties within the proposed reserve boundaries and circumnavigation of Protection Island. During this site visit, the TAC went ashore with the Refuge

Manager to tour the Protection Island National Wildlife Refuge. In addition to the TAC and DNR staff, the following individuals also participated in the site visit and provided additional information to the TAC:

- Kevin Ryan – Refuge Complex Manager – Protection Island National Wildlife Refuge
- Steve Jefferies – Marine Mammal Biologist – Washington State Department of Fish and Wildlife
- Cyrilla Cook – People For Puget Sound (Representing site proponent)
- Roger Rigley – Naturalist – Port Townsend Marine Science Center

Other technical or historical information provided to the TAC:

- Scott Pearson, Ph.D. – Senior Research Scientist, Washington State Department of Fish and Wildlife
- Peter Hodum, Ph.D. – Visiting Assistant Professor, University of Puget Sound
- Eleanor Stopps – Naturalist, Port Ludlow, WA